ABSTRACT OF THE DISCLOSURE

A digital white balance device is simply implemented in a digital processing scheme by employing a grey world algorithm. In the device, a timing controller receives vertical and horizontal synchronization signals of an input image and produces a timing control signal. An RGB multiplier multiplies input RGB image data by RGB gains received from an RGB gain controller. A first YCbCr averaging unit converts input RGB image data to YCbCr image data, and obtains first YCbCr averages of this YCbCr image data. A second YCbCr averaging unit converts output RGB image data to YCbCr image data, and obtains second YCbCr averages of this YCbCr image data. According to the timing control signal, the RGB gain controller compares the second YCbCr averages with predetermined target YCbCr averages, respectively, and obtains RGB gains based on the first YCbCr averages, according to the compared result, and provides them to the RGB multiplier.